OKLAHOMA FARM BUREAU
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April 17, 2006

Docket ID No. EPA-HQ-OAR-2001-0017
Docket ID No. EPA-HQ-OAR-2004-0018
Environmental Protection Agency
Mailcode: 6102-T
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Re: National Ambient Air Quality Standards for Particulate Matter, Proposed Rule (71 Fed. Reg. 2620 (Jan. 17, 2006)); Revisions to Ambient Air Monitoring Regulations, Proposed Rule, Amendments (71 Fed. Reg. 2710 (Jan. 17, 2006)).

Dear Sir or Madam:

Oklahoma Farm Bureau is the largest agricultural organization in the state, with more than 162,000 member families. Created in 1942, Oklahoma Farm Bureau represents the interests of farmers and ranchers and those in rural Oklahoma.

Oklahoma Farm Bureau is pleased to comment on EPA's two proposed actions governing the regulation of particulate matter (PM) under the Clean Air Act (CAA or the act): (1) the proposed National Ambient Air Quality Standards (NAAQS) for PM; and (2) the proposed revisions to the ambient air monitoring regulations at 40 C.F.R. Parts 53 and 58. These proposed regulations raise critical issues for agriculture, and we hope that EPA fully considers the views of agriculture before finalizing these proposals.

Summary of Comments

Our comments may be summarized as follows. With respect to the coarse fraction of PM ($PM_{10-2.5}$), we urge EPA not to promulgate a NAAQS because there is no scientific justification for such a standard. If EPA does decide to finalize a NAAQS for $PM_{10-2.5}$, it should adopt the proposed exclusion for agricultural sources and implement a monitoring network for $PM_{10-2.5}$ that excludes areas dominated by agricultural sources and wind-blown soil and dust from non-urban areas. There is no evidence of adverse health effects caused by non-urban $PM_{10-2.5}$, and the proposed exclusion reflects that reality.

The same is true for $PM_{2.5}$ from agricultural sources, and EPA should also exclude agricultural sources from the $PM_{2.5}$ NAAQS, or, at the least, should refrain from lowering the existing $PM_{2.5}$ NAAQS for agricultural sources.

Finally, EPA cannot legally maintain the PM_{10} standard at the same time it is also regulating $PM_{2.5}$. To avoid unwarranted permitting requirements, EPA needs to make it clear that PM_{10} is not a "regulated pollutant" under the CAA.

EPA should not promulgate a NAAQS for $PM_{10-2.5}$.

There is no conclusive scientific basis to establish a NAAQS for $PM_{10-2.5}$. Because the NAAQS must be based on the latest scientific knowledge to protect public health and welfare from identified pollutants, and cannot be set at levels lower than necessary to protect public health, it would be inappropriate for EPA to issue a NAAQS for $PM_{10-2.5}$ at this time. There are no definitive adverse health effects data from studies of either urban or non-urban areas that justify the regulation of $PM_{10-2.5}$. In fact, in 2005, EPA stated that "[t]he available epidemiologic evidence for effects of $PM_{10-2.5}$ exposure is quite limited and is inherently characterized by large uncertainties." The key studies forming the basis for EPA's $PM_{10-2.5}$ proposal were urban studies plagued by missing data, systematic bias, limited rigor, and anomalous conclusions. To the extent those studies produced reliable data, they demonstrated that $PM_{10-2.5}$ was *not* associated with mortality or other significant health effects.

The Clean Air Scientific Advisory Committee (CASAC), created by Congress to advise EPA on the NAAQS and other CAA matters, concluded in 2005 that "the evidence for a standard for coarse-mode particles [is] weaker than for the $PM_{2.5}$ . . ." CASAC recommended that EPA instead establish a national monitoring network for $PM_{10-2.5}$ to aid in informing future health and welfare studies and expansion of our knowledge of the toxicity of $PM_{10-2.5}$ dusts.

EPA should better characterize the exposure and public health effects of $PM_{10-2.5}$ before promulgating a national standard. A coarse PM NAAQS issued in the absence of sound science would exceed EPA's NAAQS authority in the CAA and would result in controls that are not needed to protect public health.

If EPA finalizes a NAAQS for $PM_{10-2.5}$,
it should adopt the proposed exclusion for agricultural sources.

Oklahoma Farm Bureau is pleased with EPA's proposal to exclude agricultural sources from the $PM_{10-2.5}$ NAAQS, should EPA proceed with issuing a standard. Scientific health studies show that there is no health basis to impose the $PM_{10-2.5}$ NAAQS on non-urban sources. Most importantly, there is no scientific evidence of adverse health effects from typical exposures to non-urban $PM_{10-2.5}$. This should hardly be surprising because $PM_{10-2.5}$ in non-urban areas generally results from wind-blown crustal materials, which have been shown to be nontoxic. Even exposures to high concentrations of ash from Mt. St. Helens' eruption had no adverse public health effects. Because primary NAAQS are appropriate only when the scientific data show adverse health effects, and EPA cannot issue NAAQS that are not necessary to protect public health, EPA has ample authority to exclude those sources of $PM_{10-2.5}$ that have not been linked to such health effects. *See* 42 U.S.C. § 7409(b)(1); *Whitman v. American Trucking Associations, Inc.*, 531 U.S. 457, 475-76 (2001).

In fact, it has long been recognized that "EPA has discretion to define the pollutant termed 'particulate matter' to exclude particulates of a size or composition determined not to present substantial public health or welfare concerns" (*Alabama Power Co. v. Costle*, 636 F.2d 323, 370 n.134 (D.C. Cir. 1980)). EPA has acted pursuant to this discretion in prior PM NAAQS reviews by incrementally excluding particles of certain sizes that had not been shown to cause adverse health effects. Now EPA has the scientific data to determine through differences in chemical composition that agricultural sources of PM should be excluded from regulation. Oklahoma Farm Bureau fully supports EPA's effort to more precisely define the $PM_{10-2.5}$ NAAQS by excluding $PM_{10-2.5}$ from agricultural sources.

The proposed regulatory language for the exclusion provides that "[a]gricultural sources . . . shall not be subject to control in meeting this standard." We believe this statement is very helpful, but would benefit from additional clarification in the final rule. EPA needs to make clear that agricultural sources located in non-attainment areas for the new $PM_{10-2.5}$ NAAQS shall not be subject to controls in the state's State Implementation Plan (SIP). Such a clarification also will protect agricultural sources located in areas that are not "dominated" by wind-blown dust and soil sources of $PM_{10-2.5}$ from undue CAA regulation. EPA should clarify that this statement in the regulations is designed to make clear that there is no need or basis for states to control these sources to obtain the public health benefits sought from the $PM_{10-2.5}$ standard.

Finally, if EPA promulgates the $PM_{10-2.5}$ NAAQS with the exclusion for agricultural sources, it should conform its interpretations of "regulated air pollutant" and "regulated [New Source Review] ("NSR") pollutant" to exclude $PM_{10-2.5}$ from agricultural sources, so that agriculture will not be subject to Title V permitting or NSR requirements based on $PM_{10-2.5}$ emissions. Such an action would be consistent with EPA's 1995 action to limit its interpretation of "regulated air pollutant" to the then-existing indicator for the PM NAAQS, PM_{10} (thus excluding the former indicator, TSP, from regulation). *See* Memorandum from Lydia N. Wegman, Deputy Director, Office of Air Quality Planning and Standards, "Definition of Regulated Pollutant for Particulate Matter for Purposes of Title V" (Oct. 16, 1995) (attached to comments of American Farm Bureau Federation).

The $PM_{10-2.5}$ monitoring network needs to be refined to ensure effective exclusion of agricultural sources in non-urban areas.

Oklahoma Farm Bureau agrees that the new monitoring network should be placed in high-population locations where concentrations of $PM_{10-2.5}$ are dominated by re-suspended dust and other PM emissions from high density traffic on paved roads, and PM generated by industrial sources and construction activities. EPA's monitoring system for $PM_{10-2.5}$ should be designed and rigorously managed to measure only the particles that EPA intends to regulate, and exclude non-urban (rural and suburban) PM sources from the $PM_{10-2.5}$ standard. The proposed five-part suitability criteria seem appropriately focused on the selection of urban and industrial areas to permit implementation of the $PM_{10-2.5}$ NAAQS.

EPA's monitoring proposal should include explicit specifications and test procedures, including quality assurance and data certification, to allow differentiation of urban and non-urban sources of PM. We are concerned that the rules limiting location of monitoring sites be

carefully designed to exclude non-urban sources from the $PM_{10-2.5}$ standard and evaluate the different contributions of non-urban versus urban PM emissions.

EPA should require the use of validated continuous measurement techniques and Very Sharp Cut Cyclone monitoring monitors as improvements to the Federal Reference Method and Federal Equivalent Methods, steps important to further distinguish PM measurements based on true concentration rather than the limits of sampler capabilities.

EPA should exclude agricultural sources from the $PM_{2.5}$ NAAQS.

While we are pleased that EPA has recognized that the scientific data requires exclusions for agricultural sources of $PM_{10-2.5}$, we believe that EPA should also distinguish among sources of $PM_{2.5}$. Numerous scientific studies show significant differences between urban and non-urban $PM_{2.5}$. For example, the varied chemical components of $PM_{2.5}$ in urban areas results from nucleation, condensation and conversion of combustion gases, producing more than 100 different PM chemical species of varying toxicity. In contrast, studies have shown that a very large percentage of non-urban $PM_{2.5}$ is re-suspended crustal material with *very low toxicity* compared to the $PM_{2.5}$ in urban population and industrial centers.

Based on these undisputed distinctions between urban and non-urban $PM_{2.5}$, EPA should define $PM_{2.5}$ on the basis of particle formation mechanisms, origin, chemical composition and atmospheric behavior, not simply by the particle size collected. EPA should develop both urban and non-urban indicators for $PM_{2.5}$ that, like the indicator for $PM_{10-2.5}$, recognizes that public health effects are determined not only by particle size, but also by particle source and composition. Based on these distinctions, EPA should exclude non-urban sources from the annual and 24-hour standards for $PM_{2.5}$.

EPA's proposal would apply a revised $PM_{2.5}$ NAAQS to all sources nationwide, urban and non-urban, despite the fact that EPA has no evidence demonstrating adverse health effects from $PM_{2.5}$ from agricultural sources. In fact, all of the studies relied upon by EPA in proposing the $PM_{2.5}$ NAAQS are based on health effects on *urban* populations of PM generated by *urban* sources. There is no scientific basis to impose the $PM_{2.5}$ NAAQS on agricultural sources.

The CAA and the case law interpreting it do not authorize applying the $PM_{2.5}$ NAAQS to agricultural sources because there is no scientific evidence of adverse health effects from $PM_{2.5}$ from agricultural sources. A primary NAAQS must be "requisite" to protect public health (42 U.S.C. § 7409(b)(1)). Further, EPA's conclusions must be supported by the record and EPA may not engage in "sheer guesswork." Rather, EPA must make an informed judgment based on available evidence. *American Petroleum Institute v. Costle*, 665 F.2d 1176, 1186-87 (D.C. Cir. 1981). Here, the "available evidence" demonstrates that non-urban $PM_{2.5}$, like non-urban $PM_{10-2.5}$, generally results from wind-blown crustal materials, which have been shown to be non-toxic. These non-toxic crustal materials may not "reasonably be anticipated" to endanger public health (42 U.S.C. § 7408(a)(1)(A)). An "informed judgment" should exclude agricultural sources from the $PM_{2.5}$ NAAQS.

If EPA decides to apply a $PM_{2.5}$ NAAQS to agricultural sources, EPA should refrain from lowering the existing NAAQS levels for those sources.

If EPA decides to subject agricultural sources to the $PM_{2.5}$ NAAQS, then, at the least, EPA should refrain from lowering the current daily or annual standard for agricultural sources. Just as there is no scientific basis to impose the $PM_{2.5}$ NAAQS on agricultural sources, there is also no scientific evidence that the 1997 $PM_{2.5}$ NAAQS levels are not adequately protective of non-urban populations. The evidence used by EPA to support a lower 24-hour standard for urban and industrially-derived $PM_{2.5}$ does not support lowering the 24-hour standard (resulting in costly control requirements) for non-urban (rural and suburban) sources.

EPA's compliance models have projected that the impact of lowering the $PM_{2.5}$ daily standard from 65 to 35 $\mu g/m^3$ would primarily increase the number of *non-urban* counties in nonattainment. Yet, EPA has no scientific evidence of adverse health effects in those non-urban counties that warrant more stringent $PM_{2.5}$ regulation. In fact, the risk posed by $PM_{2.5}$ in urban areas does not apply to non-urban areas. Fugitive dust and other agricultural $PM_{2.5}$ sources at the levels measured in ambient air in the U.S. have never been documented to have had adverse effects on human health. The differences between the sources, composition, and health effects of urban versus non-urban $PM_{2.5}$ justify different $PM_{2.5}$ standards for urban and non-urban areas.

Moreover, EPA lacks legal authority to reduce the $PM_{2.5}$ NAAQS on agricultural sources in the absence of scientific evidence showing that such a reduction is necessary. EPA has no power to promulgate NAAQS based on "hunches or wild guesses" (*Ethyl Corp. v. EPA*, 541 F.2d 1, 28 (D.C. Cir. 1976)). Because there is no evidence demonstrating that the 1997 $PM_{2.5}$ standards are not protective of non-urban populations, EPA should not impose a more stringent standard on agricultural sources. That would impose a NAAQS level on agricultural sources that is "lower . . . than is necessary" to protect public health and would be legally invalid (*Whitman v. American Trucking Associations, Inc.*, 531 U.S. 457, 475-76 (2001)).

If EPA properly applies different NAAQS to urban and agricultural sources of $PM_{2.5}$, it is crucial that states receive detailed guidance on implementation of the two standards. EPA can instruct the states to effectively distinguish between urban and agricultural sources of $PM_{2.5}$ and exclude agricultural sources from undue regulation through the following:

1) Differentiate counties by urban or non-urban dominance of $PM_{2.5}$ by applying the same five-step test for locating monitors for the new $PM_{10-2.5}$ network to the designation of existing $PM_{2.5}$ monitors as either subject to the 2006 (35 $\mu g/m^3$) or 1997 (65 $\mu g/m^3$) daily standard.

2) Retain the 1997 daily standard of 65 $\mu g/m^3$ for all counties designated as non-urban.

3) For agricultural sources in non-urban $PM_{2.5}$ non-attainment counties (i.e. those exceeding the 65 $\mu g/m^3$ standard), those agricultural sources could be subject to controls and other SIP requirements that states apply to meet the 1997 $PM_{2.5}$ standard.

4) For agricultural sources in urban $PM_{2.5}$ non-attainment counties (i.e. those exceeding the 35 $\mu g/m^3$ standard), EPA should require states to meet their SIP requirements solely through controls on urban sources not through controls on agricultural and non-urban (rural and suburban) sources. This requirement would exactly parallel the rule for $PM_{10-2.5}$.

The PM_{10} NAAQS should be fully revoked.

In *American Trucking Associations, Inc. v. EPA*, 175 F.3d 1027 (D.C. Cir. 1999), the D.C. Circuit vacated the 1997 PM_{10} standard because PM_{10} is "an arbitrary indicator for coarse particle pollution" when EPA is regulating $PM_{2.5}$ separately. That analysis also applies to EPA's proposal to retain the 1987 PM_{10} standard in 15 geographic areas. It is just as arbitrary to retain the *1987* PM_{10} standard while at the same time maintaining a $PM_{2.5}$ standard. As the D.C. Circuit held, "[i]t is the very presence of a separate $PM_{2.5}$ standard that makes retention of the PM_{10} indicator arbitrary and capricious" (*American Trucking*, 175 F.3d at 1054).

EPA's proposed rationale for retaining the PM_{10} standard does not overcome the defective combination of a $PM_{2.5}$ and PM_{10} standard addressed by the court. EPA appears to be relying on administrative convenience of the existing monitoring network, rather than actual evidence of adverse health effects from the coarse fraction of PM in the 15 areas. EPA has no evidence that the PM_{10} violations in the 15 areas are primarily caused by the coarse fraction of PM. In fact, eight of these same 15 areas have been designated as nonattainment for $PM_{2.5}$. The proposition that the 15 areas subject to the retained standard "*could* be in violation" of the revised $PM_{10-2.5}$ standard is insufficient to justify continued regulation.

EPA has developed a NAAQS for the range of particle sizes included in $PM_{10-2.5}$, excluding PM from agricultural sources. Because the data for the 15 areas with the retained PM_{10} standard may include PM from agricultural sources as well as $PM_{2.5}$, the *retained* standard is not consistent with the *revised* standard, or with the law. EPA must develop new nonattainment designations for the coarse fraction of PM based on the new standard, rather than attempt to enforce nonattainment designations that are based on a legally invalid standard.

In addition, other regulatory obligations under the Clean Air Act might persist if EPA failed to clarify the de-regulated status of PM_{10} – emissions of PM_{10} could trigger Title V permitting obligations and NSR requirements. For this reason, EPA should take the regulatory steps necessary to fully revoke PM_{10} as a regulated pollutant.

We appreciate the opportunity to provide these written comments on behalf of Oklahoma Farm Bureau and thank you in advance for your consideration. If you have any questions concerning these comments or if you would like additional information, please do not hesitate to contact us.

Sincerely,

Marla R. Peek
Director of Regulatory Affairs

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